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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,618	07/25/2004	Chien-Li Hung	LITP0041USA	4617

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NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION  
P.O. BOX 506  
MERRIFIELD, VA 22116

EXAMINER
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TRAN, THANG V

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/710,618

Applicant(s)

HUNG ET AL.

Examiner

Thang V. Tran

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____                                                         | 6) <input type="checkbox"/> Other: _____                          |

An amendment dated 11/14/06 has been considered with the following results:

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 11-15 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is unclear where the specification contains the written description of a subject matter "reducing the speed of the spindle motor to decrease a control current flowing to an actuator of the optical pickup head if the temperature of the optical pickup decreases to a first predetermined temperature" as now newly recited in claim 11. Claims 12-15 fall with their parent claim 11.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 11 and 13-15:

It is unclear why the speed of the spindle is reduced since the temperature of the optical pickup decreases to a first predetermined temperature, as recited in claim 1, and thereafter shut

down if the temperature of the optical pickup head is too low, as recited in claim 13. Also, it is unclear how the control current flowing to the actuator is decreases (in claim 1) if the speed to the spindle motor is increase when the temperature of the optical head is higher than a second predetermined temperature (recited in claim 14), where the second temperature is higher than the first temperature (recited in claim 14). Limitations recited in claims 14 and 15 are contradict to what recited in claim 11.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 11, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakatsuka et al. (US 6,542,449).

Regarding claim 11, see Figs. 1 and 2 of Nakatsuka et al. which disclose an optical apparatus having a temperature detector (5) provided in the optical pickup head for performing a step of detecting the temperature (T) of the optical pickup head (see step S3 in Fig. 2); and a controller (7) for reducing the speed of a spindle motor (3) when the detected temperature (T) is lower than a first predetermined temperature Ta (see step S5 in Fig. 2), and since the speed of the spindle motor is reduced, temperature generated from the motor is also reduced, control current flowing to an actuator in the pickup head is also reduced inherently.

Regarding claim 12, see thermistor 5 in Fig. 1.

Regarding claims 14, see step S7 in Fig. 2 which performing a step of increasing the speed of the spindle motor when the detected temperature (see step S4) is higher than a second predetermined temperature Ta.

No art is applied to determine the allowability of claims 13 and 15 due to the uncertain nature of the claims. But applicant's attention is drawn to step S5 where the speed is a sleeping mode, the lowest speed can be interpreted as shut down, and the lower and higher temperatures detected based on a single reference temperature can be easily modified by using two different reference temperatures to one of ordinary skill in the art.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (Pub No. 2005/002301) in view of Cameron (US 6,094,026).

Regarding claim 1 and 6, Suzuki et al., according to Fig. 1, discloses an optical apparatus having a temperature detector (131) provided in an optical pickup head for performing a step of detecting a temperature of optical pickup head when a spindle motor (121) rotates at a first speed (CLV); and a spindle controller (122) for performing a step of controlling the spindle motor (121) to rotate at a second speed (CAV) to reduce a control current flowing to an actuator of the pickup head if the detected temperature is over a first predetermined temperature. However, Suzuki et al fails to indicate whether the second speed is lower than first speed. Cameron, in the

same field of invention, teaches that in order to reduce a temperature or heat flowing over other part of the pickup head (disk drive), reduce or control a first speed (normal speed) of the spindle motor to a second speed (lower speed) when the detected temperature is higher than a first predetermined temperature (see respective disclosure of Fig. 1 or 3). It would have been obvious to one of ordinary skill in that art at the time the invention was made to modify the apparatus of Suzuki by reducing or controlling the first speed of the spindle motor to the second speed lower than the first speed when the detected temperature is higher than a first predetermined temperature based on the teaching of Cameron in order to accurately prevent overhead or over temperature of the device.

Regarding claims 2 and 7, see thermistor 131 in Fig. 1 of Suzuki or in Fig. 2 of Cameron for limitation of a thermistor as recited in this claim.

Regarding claims 3 and 8, see column 4, lines 42-47, of Cameron for limitation of if the temperature of the optical pickup head increases to a rated operating temperature, the spindle motor is shut down as recited in this claim.

Regarding claims 4 and 9, see column 5, lines 20-46, of Cameron for limitation of when the spindle motor rotates at the second speed, controlling the spindle motor to rotate at the first speed if the temperature of the optical pickup head is lower than a second predetermined temperature as recited in this claim.

Regarding claims 5 and 10, see column 5, lines 28-42 or column 6, lines 41-58, of Cameron for limitation related to the first predetermined temperature that is higher than the second predetermined temperature as recited in this claim.

***Cited References***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited reference relates to a disk drive having a thermal control circuit for detecting a temperature, and a driving circuit for reducing a rotation speed of a motor of the disk drive when the detected temperature is greater than a predetermined level.

***Response to Arguments***

10. Applicant's arguments with respect to claimed invention have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (571) 272-7595. The examiner can normally be reached on M-F 9:30AM-6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Hoa can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thang V. Tran  
Primary Examiner  
Art Unit 2627